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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/619,649	03/27/96	DRMANAC	R ARCD: 146/BOW

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18M2/0528

EXAMINER

CAMPBELL, E

ART UNIT

PAPER NUMBER

1807

DATE MAILED:

05/28/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 7/15/96

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 MONTHS ~~months, or thirty days~~ whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 47-96 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 47-96 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Patent Application, PTO-152

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Art Unit: 1634

Interference

Interference of Application 08/619649 and U.S. Patent No. 5,545,531 (1996).

The Count:

A method for making a sequencing chip plate comprising the steps of:

- (a) providing a plate;
- (b) providing a sequencing chip comprising an array of oligonucleotides;
- (c) disposing said sequencing chip on said plate.

In application 08/619649:

Claims 112-126 and 153-156 correspond to the count. Claims 113, 115- 121 further limit the DNA probes that are used. Claims 114, 122-126 further limits the plates and how the probes are immobilized on said plates.

Claims 49-96, 97-111 and 127-152 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khrapko et al. (DNA Sequencing and Mapping 1:375-388 (1991), further in view of Khrapko et al. (FEBS Lett. 256, pages 118-122 (1989)).

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Khrapko et al. teach a method for DNA sequencing by hybridization with an oligonucleotide matrix. This matrix can be miniaturized for sequencing chips and immobilized within 100 micron dots disposed at 100 micron intervals (see entire article).

Khrapko et al. teach DNA sequencing based on hybridization of fixed length oligonucleotides immobilized on a matrix (see results and discussion section).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to combine the prior art cited for improving methods of automated DNA sequencing to achieve the claimed invention as a whole.

One of ordinary skill in the art would have been motivated to achieve the claimed invention as a whole for the expected advantage of sequencing large regions of genomic DNA by automation.

In U.S. Patent. No. 5,545,531:

Claims 1-4 correspond to the count. Although the claims does not refer to said methods for making a sequencing plate, the specification discloses that the nucleic acid probes attached to the plate are used for sequencing.

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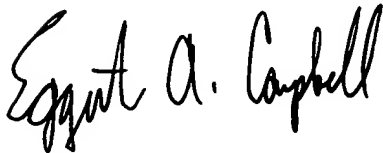
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eggerton Campbell whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 4:30 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can normally be reached on Monday-Friday from 8:00 AM to 4:00 PM (EST) and whose telephone number is (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Group 180 by facsimile transmission.

Papers should be faxed to Group 180 via the PTO Fax Center located in Crystal Mall I. Papers may be submitted Monday-Friday between 8:00 am and 4:45 pm (EST). The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (703) 305-3014 or (703) 308-4242.

A handwritten signature in black ink, reading "Eggert A. Campbell". The signature is written in a cursive, flowing style.

Eggerton A. Campbell Ph.D.
March 30, 1998

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